Aggressive B-cell Lymphoma
Diagnostic Algorithm

Morphology: diffuse large B-cell lymphoma (DLBCL), high grade B-cell lymphoma (HGBCL), or Burkitt lymphoma

Positive for MYC rearrangement but negative for IGH/MYC fusion

FISH: BCL2 and BCL6 BAP
Add IGK/MYC and IGL/MYC D-FISH only if pediatric patient and/or high suspicion for Burkitt lymphoma

Negative for BCL2 and BCL6 rearrangements

Morphology: DLBCL vs HGBCL vs Burkitt lymphoma

HGBCL vs Burkitt lymphoma

COO IHC (CD10, BCL6, MUM1) and double expresser IHC (BCL2 and MYC)

CD10+, CD43+, BCL2+, BCL6+, MUM1+, MYC+, BCL2–

Probably Burkitt lymphoma, particularly if IG/MYC identified. Confirm with morphology and clinical.

HGBCL, not otherwise specified

Any other phenotype

COO IHC (CD10, BCL6, MUM1) and double expresser IHC (BCL2 and MYC)

BCL2+ and MYC+

All others

Double expresser IHC: BCL2 and MYC

BCL6

Not a double expresser

POSITIVE

NEGATIVE

POSITIVE

NEGATIVE

POSITIVE

NEGATIVE

POSITIVE

NEGATIVE

BCL2+ and MYC+

MUM1

Non-germinal center B-cell phenotype

Germinal center B-cell phenotype

Non-germinal center B-cell phenotype

Germinal center B-cell phenotype